

A NEW SPECIES OF DYSSODIA (COMPOSITAE)  
FROM NORTH CENTRAL MEXICO

B. L. TURNER

The University of Texas, Austin, 78712

It is with some embarrassment that I describe here a new species of the genus *Dyssodia*, since there appeared only a couple of years ago an excellent monograph of the genus by a former student of mine (Strother, 1969, Univ. Calif. Publ. Bot. 48: 1-88). But this merely reflects our poor knowledge of the flora of North Central Mexico, especially that found on gypseous soils. I. M. Johnston (1941, Jour. Arn. Arb. 22: 145-170) compiled a beginning list for several sites in this region, pointing to the significance of gypsum as a substrate factor for endemism. Gypsum sites in Mexico are clearly in need of much more intensive study and they will undoubtedly yield many new taxa as they are explored over a larger region.

***Dyssodia gypsophila* Turner, sp. nov.**

Frutex diffusus divaricatus 30—60 cm altus. Caules veteres cortice dealbata demum decorticantes. Caules annotina glabrati hornotini puberuli pilis albis. Folia linearia plus minusve succulenta plerumque opposita vel prope capitula alterna (10—) 15—25 mm longa triquetra glabra sed margine ciliata glandibus marginalibus uniformiter dispersis tumidis in sicco badiis. Capitula radiata multiflora pedunculis unicapitulatis 1—4 mm longis dense pubentes. Involucra late turbinata-campulata conspicuo albo-pubentia 7—9 mm alta 4—5 lata biseriata partibus calyculi 3—5 linearis-lanceolatis. Phyllaria ca 13 calyculo 2—3-plo longiora imbricata usque fereve ad apicem connata glandibus paucis grandibus uniformiter dispersis in sicco badiis apicibus scariosis acutis vel obtusis. Receptaculum planum nudum ca 2mm diametro. Rami flores saepe 8 corollis flavis tubulis 2—3 mm longis ligulis ellipticis 6—8 mm longis 2—4 mm latis retusis vel obtusis. Disci flores 25—30 corollis luteis 4—5 mm longis tubulosis lobulis brevissimis acutis. Styli rami appendiculati appendiculibus parvis acutis papillatis. Achenia a *D. acerosa* breviora crassioraque differunt distincte 4—5 angulata fuliginosa vel nigra omnino uniformiter conspicuoque pubentia pilis rectis albis mollis adpressis. Pappus squamiformis squamellis 15—20 debiliter evolutis sursum irregulariter dissectis setaceisque setis longioribus corollas disci superantibus achenia 1.5-plo longioribus.

Open, divaricately branched, shrubs, 30-60 cm high; stems very brittle, at first minutely white puberulent but becoming nearly glabrate with age and forming a white, sloughing bark; leaves linear, succulent, or nearly so, mostly opposite but becoming alternate just below the heads, (10)15—25 mm long, glabrous, except for the minutely, ciliate margins, triangular in cross section, the sides about 1 mm wide and

bearing relatively evenly-spaced, swollen, glands; heads borne on densely pubescent, peduncles, 1—4 mm long; calyculum of 3—5, linear lanceolate, pubescent bracts,  $\frac{1}{3}$ — $\frac{1}{2}$  times as long as the phyllaries; involucre broadly turbinate-campanulate, conspicuously white puberulent, 7—9 mm high, 4—5 mm through; phyllaries ca 13, biseriate, imbricately connate to the scarious, acute to obtuse tips, or nearly so, the bracts rather evenly dotted with relatively few, large glands; receptacle flat, naked, ca 2 mm across; ray florets mostly 8, corollas yellow, tube 2—3 mm long, lamina elliptic, 6—8 mm long, 2—4 mm wide, retuse or obtuse at the apex; disc florets 25—30, corollas light yellow, 4—5 mm long, tubular, lobes very short, acute; style branches with small, acute, papillate appendages; achene rather prominently 4—5 angled (short and thick as compared to *D. acerosa*), dark brown to black, evenly and conspicuously pubescent throughout with straight, white, soft, appressed hairs; pappus of 15—20 poorly developed squamellae, each dissected into 3—6 bristles of varying sizes, but the longer ones exceeding the disc corollas, being 1.5 times as long as the achene.

Holotype (TEX): MEXICO. Coahuila; 15 mi SW of Cuatro Cienegas, growing on gypsum dunes. 25 Sep 1970. *B. L. Turner 6172*. (Isotype UC).

Known only from the type locality where it is relatively uncommon on actively blowing dunes of gypsum.

The species has a very distinctive habit and is easily distinguished from its nearest relative, *D. acerosa*, which is a small, mostly suffruticose perennial possessing fasciculate foliage and much-shortened internodes, the leaves being very slender and decidedly acerose; the leaves of *D. gypsophila* are relatively evenly spaced along the stems at rather distant nodes, rarely if at all fasciculate and are decidedly thick and succulent.

In addition to features of the habit and foliage, *D. gypsophila* can be distinguished by its larger, more-or-less evenly punctuate, decidedly pubescent involucre, more numerous florets, smaller, more prominently pubescent achenes and longer pappus.

*Dyssodia gypsophila* is named for the remarkable habitat in which it grows and to which it is apparently restricted. The dune area is about 15—20 air line km SW of the village of Cuatro Cienegas. It is quite extensive, being comprised of perhaps 10—20 square kilometers of actively blowing dunes, 5—40 feet high, which are readily seen at a distance of some 10 km west of the highway leading SW from Cuatro Cienegas to San Pedro. *D. gypsophila* shares this habitat with several other prominent gypseous endemics, the more noteworthy being *Petalonyx crenatus*, *Coldenia hispidissima*, *Drymaria lyropetala*, *Selinocarpus purpusianus*, *Neerisyrenia castillonii* and *N. incana*.

I acknowledge, with thanks, the Latin description provided by M. C. Johnston and the various helpful suggestions from John Strother. Field work was supported, in part, by NSF Grant GB 5548X.